

REPLY: Left Atrial Appendage Occlusion Device Societal Overview



The Surgeon's Comment

While the American College of Cardiology/Heart Rhythm Society/Society for Cardiovascular Angiography and Interventions (ACC/HRS/SCAI) statement on left atrial appendage (LAA) occlusion devices principally focused upon the rapidly evolving technologies for percutaneous occlusion (1), the principles stated in the document—including the need for robust evidence and the importance of multidisciplinary involvement in decision making—are equally relevant to surgical and thoracoscopic approaches as described in the letter from Drs. Emmert and Salzberg.

As the correspondents indicate, several approaches have been suggested to achieve LAA occlusion. However, meaningful comparative outcomes data, both with respect to efficacy and safety for these approaches, are generally lacking. The published studies of surgical and thoracoscopic approaches are uniformly small, performed within few centers, and do not include comparisons with standard therapy (which would include no therapy among patients who cannot tolerate anticoagulation) (2-4). While interesting, the surrogate endpoint of completeness of LAA closure cannot be assumed to translate into improvements in patient outcomes. The current literature of these alternative approaches does not establish efficacy in terms of outcomes meaningful to patients such as stroke or bleeding. Furthermore, precise estimates of safety among patients for whom this technology might be used in diverse centers are not available. The LAAOS III (Left Atrial Appendage Occlusion Study III) trial is assessing surgical LAA ligation in a randomized design with a principal endpoint of stroke (5). Because it will provide comparative data on safety and efficacy of an approach to LAA occlusion, the study is unusual and the results will be informative. However, LAAOS III will apply only to patients who, similar to those enrolled in the trial, are undergoing cardiac surgery for other reasons.

Regardless of the approaches considered for LAA occlusion, the multisocietal document (1) emphasizes the need for more informative data for each technology, including trials to establish efficacy based upon endpoints important to patients as well as observational data of approved devices to understand

patient selection, procedural safety, and long-term outcomes in contemporary practice. These principles are equally applicable to surgical and thoracoscopic approaches. The document (1) also strongly endorses a multidisciplinary approach to the evaluation and treatment of patients considered for the use of LAA occlusion devices suggested by Drs. Emmert and Salzberg. The team involved in this discussion should invariably include the procedural specialists who would perform the procedure or procedures considered for an individual patient. Thus, in those cases where a surgical approach is considered, surgeons should naturally be involved in the discussion. In all cases, these discussions should be informed by robust data on safety and effectiveness to support meaningful shared decision making.

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